

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: EPHESUS

Report Number: P624181

Luminaire Tested: **EPH-VN-04-E-730-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624181
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-730-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (64) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

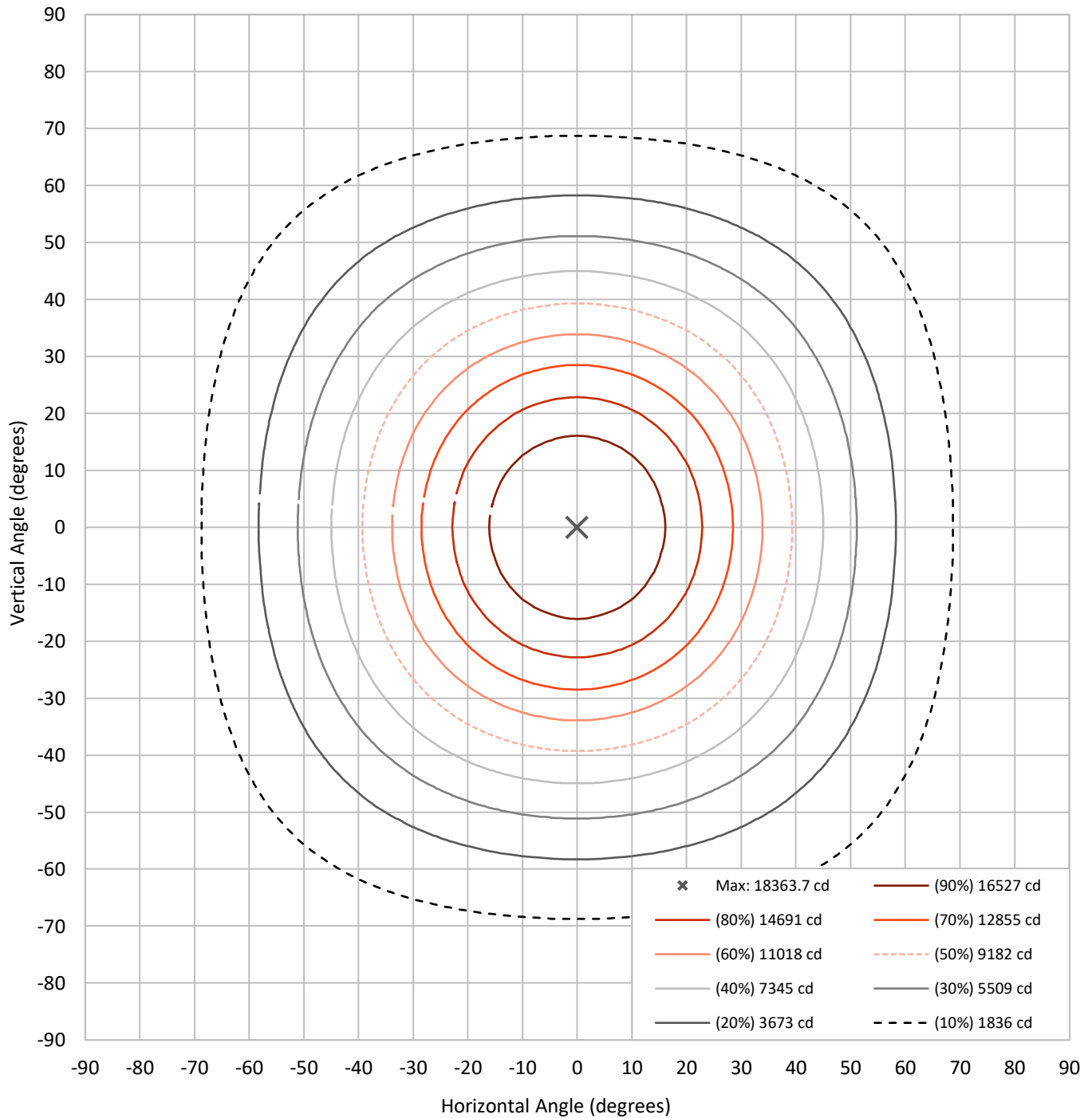
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	33064.2 lumens	Max Intensity:	18363.7 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	108.8 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	14306.6 lumens	Field Lumens:	23426.5 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 303.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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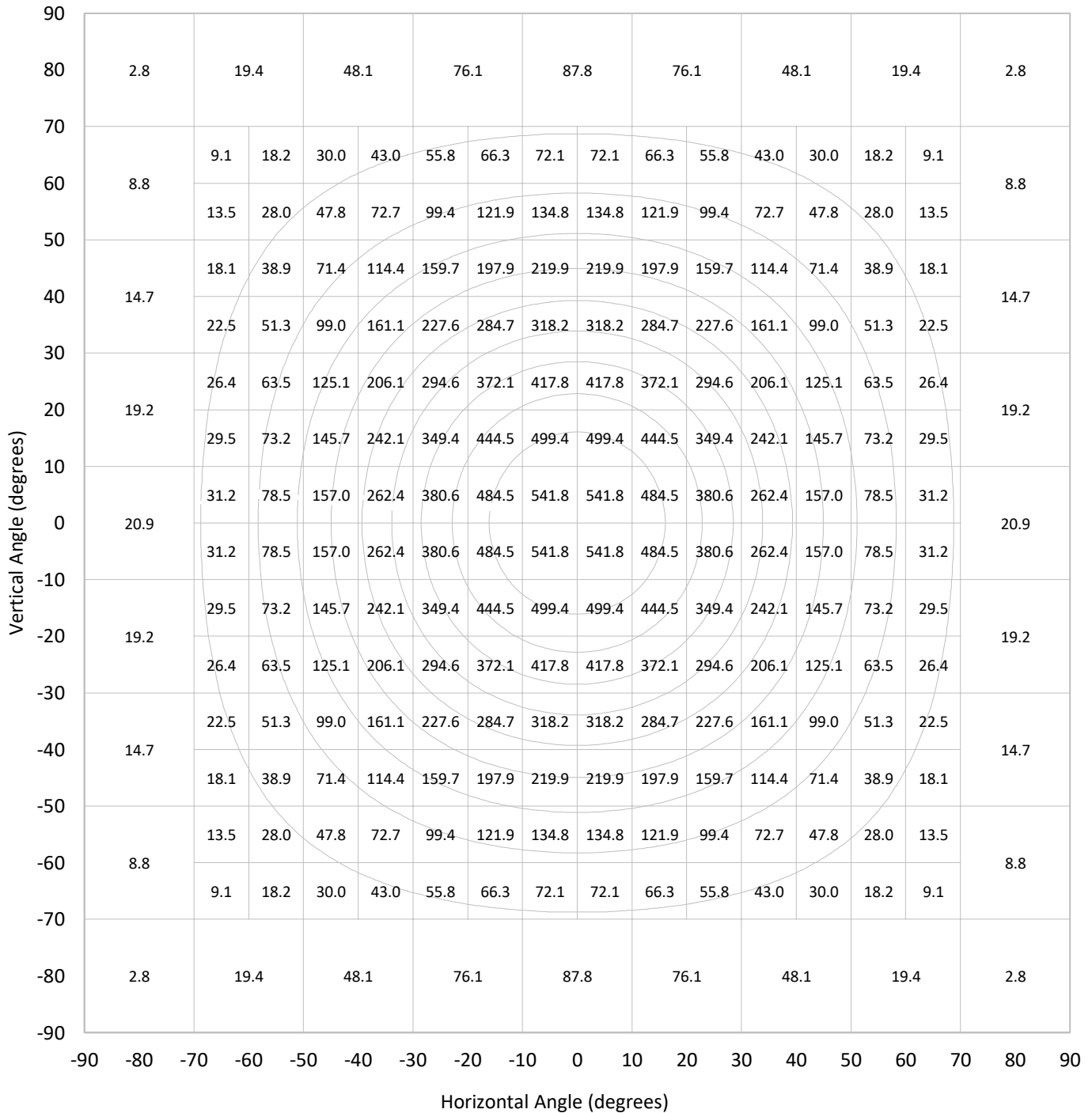
Iso-Candela Plot





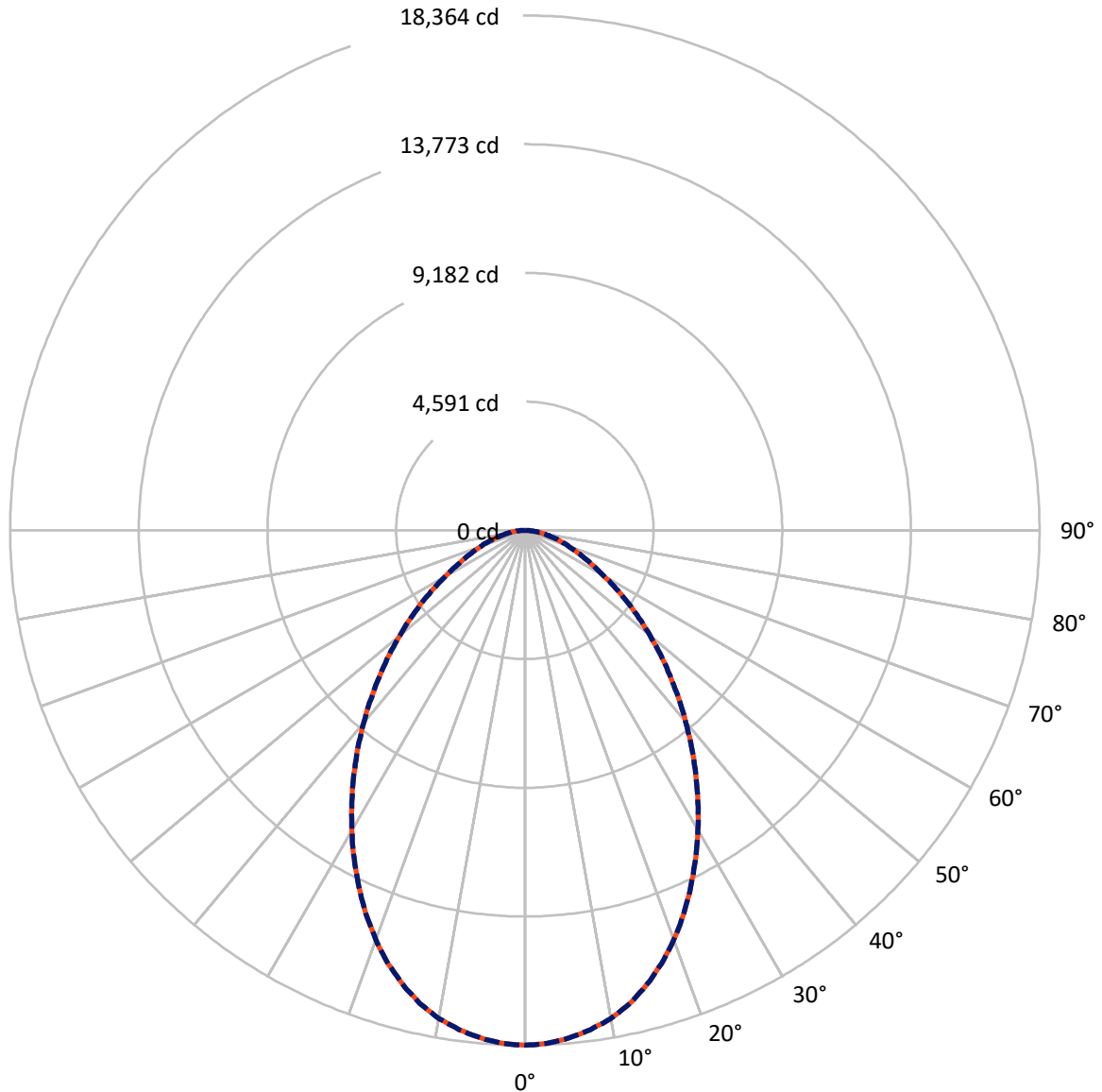
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Lumen Table



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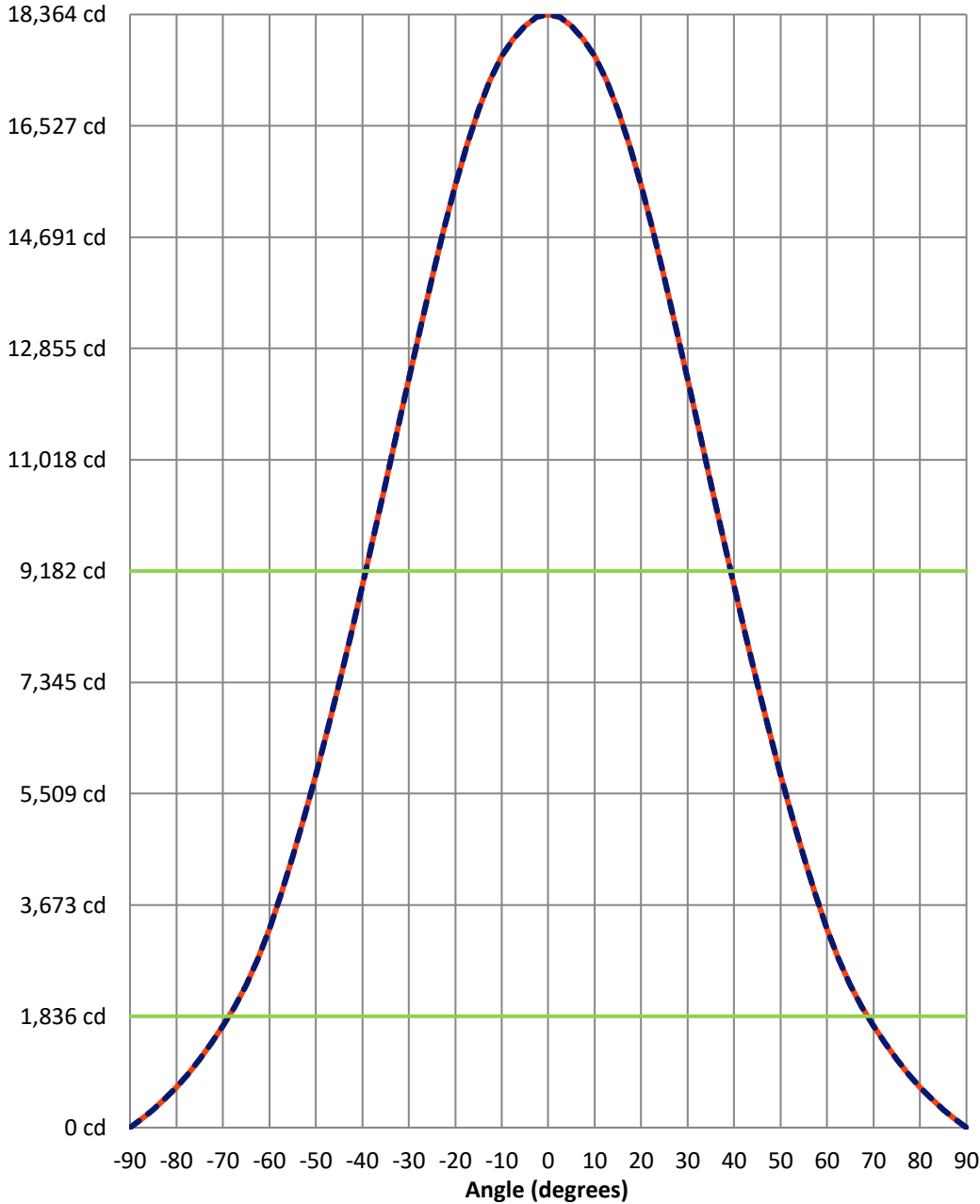
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 78.6°
 V Angle: 78.6°
 Lumens: 14306.6
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 23426.5
 Efficiency: 70.9%

Spill:
 Lumens: 9637.7
 Efficiency: 29.1%

— Vertical Distribution through 0-Deg
 - - Horizontal Distribution through 0-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	141.3	141.3	141.3	141.3	141.3	141.3	141.3	134.4	134.4	131.0	127.5
85°	296.5	296.5	296.5	296.5	296.5	289.6	286.1	282.7	279.2	272.3	268.9
82.5°	475.7	475.7	475.7	475.7	468.8	461.9	458.5	451.6	444.7	434.4	424.0
80°	665.3	665.3	665.3	665.3	655.0	648.1	637.7	630.9	620.5	606.7	592.9
77.5°	882.5	882.5	882.5	872.2	865.3	854.9	844.6	830.8	817.0	799.8	779.1
75°	1127.3	1127.3	1127.3	1113.5	1103.1	1092.8	1075.6	1058.3	1037.6	1013.5	985.9
72.5°	1392.7	1392.7	1392.7	1375.5	1365.1	1347.9	1327.2	1303.1	1278.9	1247.9	1213.4
70°	1678.8	1678.8	1678.8	1658.1	1640.9	1623.7	1596.1	1568.5	1534.0	1499.6	1458.2
67.5°	1989.1	1989.1	1989.1	1965.0	1944.3	1920.1	1889.1	1854.6	1813.3	1765.0	1716.7
65°	2351.0	2351.0	2337.3	2316.6	2292.4	2258.0	2220.1	2171.8	2120.1	2058.0	1992.5
62.5°	2778.5	2778.5	2757.8	2733.7	2702.7	2657.9	2606.1	2544.1	2471.7	2392.4	2313.1
60°	3274.9	3274.9	3250.8	3219.8	3174.9	3119.8	3050.8	2971.6	2881.9	2782.0	2685.4
57.5°	3847.2	3847.2	3816.1	3774.8	3719.6	3650.7	3564.5	3464.5	3350.8	3226.7	3106.0
55°	4467.7	4467.7	4429.8	4381.5	4316.0	4233.3	4129.8	4012.6	3874.7	3733.4	3578.3
52.5°	5126.1	5126.1	5081.3	5026.1	4950.3	4853.8	4736.6	4598.7	4440.1	4274.6	4091.9
50°	5819.0	5819.0	5767.3	5705.3	5619.1	5505.3	5370.9	5212.3	5036.5	4843.4	4633.1
47.5°	6560.2	6560.2	6501.6	6429.2	6325.8	6194.8	6036.2	5853.5	5653.5	5436.4	5198.5
45°	7322.0	7322.0	7256.5	7173.8	7060.0	6911.8	6736.0	6560.2	6305.1	6053.4	5777.6
42.5°	8114.9	8114.9	8039.1	7946.0	7815.0	7653.0	7453.0	7225.5	6973.9	6691.2	6391.3
40°	8938.8	8938.8	8852.6	8745.8	8601.0	8414.8	8190.7	7935.6	7653.0	7339.3	7008.3
37.5°	9779.9	9779.9	9683.4	9566.2	9404.2	9197.4	8945.7	8663.0	8345.9	7997.7	7632.3
35°	10628.0	10628.0	10521.1	10393.6	10214.3	9986.8	9714.4	9400.7	9049.1	8669.9	8259.7
32.5°	11493.2	11493.2	11376.0	11231.2	11027.9	10776.2	10476.3	10135.0	9779.9	9338.7	8890.5
30°	12348.2	12348.2	12220.6	12062.0	11844.9	11569.1	11241.6	10865.8	10448.7	9997.1	9514.5
27.5°	13189.3	13154.8	13048.0	12879.0	12641.2	12348.2	11993.1	11586.3	11134.7	10638.3	10121.2
25°	14016.7	13978.7	13861.5	13675.4	13420.3	13099.7	12717.0	12282.7	11796.6	11272.6	10707.3
22.5°	14809.5	14768.2	14644.1	14444.1	14171.8	13823.6	13413.4	12948.0	12430.9	11869.0	11272.6
20°	15543.8	15499.0	15371.4	15161.1	14878.5	14509.6	14075.3	13575.4	13023.8	12430.9	11796.6
17.5°	16205.7	16160.9	16026.4	15809.2	15543.8	15133.6	14685.4	14158.0	13575.4	12948.0	12282.7
15°	16788.3	16740.0	16602.1	16384.9	16081.6	15695.5	15223.2	14685.4	14075.3	13413.4	12717.0
12.5°	17284.7	17236.4	17095.1	16877.9	16564.2	16178.1	15695.5	15133.6	14509.6	13823.6	13099.7
10°	17677.7	17629.4	17495.0	17288.1	16964.1	16564.2	16081.6	15543.8	14878.5	14171.8	13420.3
7.5°	17960.3	17915.5	17791.4	17584.6	17288.1	16877.9	16384.9	15809.2	15161.1	14444.1	13675.4
5°	18174.1	18122.4	17998.3	17791.4	17495.0	17095.1	16602.1	16026.4	15371.4	14644.1	13861.5
2.5°	18322.3	18260.3	18122.4	17915.5	17629.4	17236.4	16740.0	16160.9	15499.0	14768.2	13978.7
0°	18363.7	18322.3	18174.1	17960.3	17677.7	17284.7	16788.3	16205.7	15543.8	14809.5	14016.7



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	124.1	124.1	120.7	117.2	113.8	106.9	103.4	100.0	96.5	89.6	86.2
85°	262.0	255.1	248.2	241.3	231.0	224.1	213.7	206.8	196.5	186.2	175.8
82.5°	413.7	403.3	389.5	379.2	365.4	348.2	334.4	317.2	299.9	286.1	268.9
80°	579.1	561.9	544.7	527.4	506.8	486.1	465.4	444.7	420.6	396.4	372.3
77.5°	758.4	734.3	710.1	682.6	658.4	630.9	603.3	575.7	544.7	513.6	482.6
75°	958.3	927.3	892.8	858.4	827.3	789.4	751.5	713.6	672.2	634.3	592.9
72.5°	1175.5	1137.6	1096.2	1054.9	1010.1	961.8	913.5	861.8	813.6	765.3	713.6
70°	1409.9	1365.1	1313.4	1261.7	1206.5	1147.9	1089.3	1027.3	965.2	903.2	841.1
67.5°	1661.6	1606.4	1544.4	1482.3	1413.4	1344.4	1275.5	1203.1	1127.3	1051.4	979.0
65°	1930.5	1861.5	1789.1	1709.9	1630.6	1551.3	1468.5	1382.4	1296.2	1206.5	1127.3
62.5°	2230.4	2144.2	2051.1	1954.6	1865.0	1768.5	1678.8	1572.0	1468.5	1368.6	1268.6
60°	2578.6	2464.8	2351.0	2230.4	2116.6	1992.5	1882.2	1765.0	1647.8	1534.0	1416.8
57.5°	2968.1	2823.3	2685.4	2540.6	2389.0	2251.1	2109.7	1968.4	1837.4	1703.0	1575.4
55°	3409.4	3233.6	3061.2	2881.9	2706.1	2533.8	2354.5	2195.9	2033.9	1882.2	1734.0
52.5°	3892.0	3692.0	3478.3	3274.9	3050.8	2837.1	2637.2	2437.2	2247.6	2064.9	1896.0
50°	4409.1	4174.7	3929.9	3681.7	3426.6	3174.9	2933.6	2699.2	2478.6	2264.9	2064.9
47.5°	4946.9	4681.4	4402.2	4119.5	3847.2	3540.4	3250.8	2985.3	2719.9	2478.6	2247.6
45°	5498.4	5198.5	4891.7	4571.1	4250.5	3919.6	3599.0	3274.9	2985.3	2699.2	2437.2
42.5°	6067.2	5729.4	5388.1	5033.0	4678.0	4316.0	3954.0	3599.0	3250.8	2933.6	2637.2
40°	6653.3	6280.9	5891.4	5505.3	5126.1	4712.4	4316.0	3919.6	3540.4	3174.9	2837.1
37.5°	7239.3	6832.5	6411.9	5977.6	5543.2	5126.1	4678.0	4250.5	3847.2	3426.6	3050.8
35°	7828.8	7380.6	6925.6	6453.3	5977.6	5505.3	5033.0	4571.1	4119.5	3681.7	3274.9
32.5°	8421.7	7932.2	7428.9	6925.6	6411.9	5891.4	5388.1	4891.7	4402.2	3929.9	3478.3
30°	9004.3	8473.4	7932.2	7380.6	6832.5	6280.9	5729.4	5198.5	4681.4	4174.7	3692.0
27.5°	9573.1	9004.3	8421.7	7828.8	7239.3	6653.3	6067.2	5498.4	4946.9	4409.1	3892.0
25°	10121.2	9514.5	8890.5	8259.7	7632.3	7008.3	6391.3	5777.6	5198.5	4633.1	4091.9
22.5°	10638.3	9997.1	9338.7	8669.9	7997.7	7339.3	6691.2	6053.4	5436.4	4843.4	4274.6
20°	11134.7	10448.7	9779.9	9049.1	8345.9	7653.0	6973.9	6305.1	5653.5	5036.5	4440.1
17.5°	11586.3	10865.8	10135.0	9400.7	8663.0	7935.6	7225.5	6560.2	5853.5	5212.3	4598.7
15°	11993.1	11241.6	10476.3	9714.4	8945.7	8190.7	7453.0	6736.0	6036.2	5370.9	4736.6
12.5°	12348.2	11569.1	10776.2	9986.8	9197.4	8414.8	7653.0	6911.8	6194.8	5505.3	4853.8
10°	12641.2	11844.9	11027.9	10214.3	9404.2	8601.0	7815.0	7060.0	6325.8	5619.1	4950.3
7.5°	12879.0	12062.0	11231.2	10393.6	9566.2	8745.8	7946.0	7173.8	6429.2	5705.3	5026.1
5°	13048.0	12220.6	11376.0	10521.1	9683.4	8852.6	8039.1	7256.5	6501.6	5767.3	5081.3
2.5°	13154.8	12348.2	11493.2	10628.0	9779.9	8938.8	8114.9	7322.0	6560.2	5819.0	5126.1
0°	13189.3	12348.2	11493.2	10628.0	9779.9	8938.8	8114.9	7322.0	6560.2	5819.0	5126.1



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CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	82.7	75.8	68.9	65.5	58.6	55.2	48.3	41.4	37.9	31.0	24.1
85°	165.5	151.7	141.3	131.0	120.7	106.9	96.5	86.2	72.4	62.1	48.3
82.5°	251.7	234.4	217.2	199.9	182.7	165.5	144.8	127.5	110.3	93.1	72.4
80°	348.2	320.6	296.5	272.3	248.2	224.1	196.5	172.4	144.8	120.7	96.5
77.5°	448.1	417.1	382.6	348.2	313.7	282.7	248.2	217.2	186.2	151.7	120.7
75°	555.0	513.6	475.7	430.9	389.5	344.7	303.4	262.0	224.1	186.2	144.8
72.5°	665.3	613.6	561.9	513.6	461.9	410.2	362.0	310.3	262.0	217.2	172.4
70°	779.1	717.0	655.0	596.4	537.8	475.7	420.6	362.0	303.4	248.2	196.5
67.5°	899.7	827.3	755.0	679.1	613.6	544.7	475.7	410.2	344.7	282.7	224.1
65°	1030.7	944.6	854.9	775.6	689.5	613.6	537.8	461.9	389.5	313.7	248.2
62.5°	1165.2	1065.2	965.2	865.3	775.6	679.1	596.4	513.6	430.9	348.2	272.3
60°	1303.1	1189.3	1075.6	965.2	854.9	755.0	655.0	561.9	475.7	382.6	296.5
57.5°	1444.4	1316.9	1189.3	1065.2	944.6	827.3	717.0	613.6	513.6	417.1	320.6
55°	1589.2	1444.4	1303.1	1165.2	1030.7	899.7	779.1	665.3	555.0	448.1	348.2
52.5°	1734.0	1575.4	1416.8	1268.6	1127.3	979.0	841.1	713.6	592.9	482.6	372.3
50°	1882.2	1703.0	1534.0	1368.6	1206.5	1051.4	903.2	765.3	634.3	513.6	396.4
47.5°	2033.9	1837.4	1647.8	1468.5	1296.2	1127.3	965.2	813.6	672.2	544.7	420.6
45°	2195.9	1968.4	1765.0	1572.0	1382.4	1203.1	1027.3	861.8	713.6	575.7	444.7
42.5°	2354.5	2109.7	1882.2	1678.8	1468.5	1275.5	1089.3	913.5	751.5	603.3	465.4
40°	2533.8	2251.1	1992.5	1768.5	1551.3	1344.4	1147.9	961.8	789.4	630.9	486.1
37.5°	2706.1	2389.0	2116.6	1865.0	1630.6	1413.4	1206.5	1010.1	827.3	658.4	506.8
35°	2881.9	2540.6	2230.4	1954.6	1709.9	1482.3	1261.7	1054.9	858.4	682.6	527.4
32.5°	3061.2	2685.4	2351.0	2051.1	1789.1	1544.4	1313.4	1096.2	892.8	710.1	544.7
30°	3233.6	2823.3	2464.8	2144.2	1861.5	1606.4	1365.1	1137.6	927.3	734.3	561.9
27.5°	3409.4	2968.1	2578.6	2230.4	1930.5	1661.6	1409.9	1175.5	958.3	758.4	579.1
25°	3578.3	3106.0	2685.4	2313.1	1992.5	1716.7	1458.2	1213.4	985.9	779.1	592.9
22.5°	3733.4	3226.7	2782.0	2392.4	2058.0	1765.0	1499.6	1247.9	1013.5	799.8	606.7
20°	3874.7	3350.8	2881.9	2471.7	2120.1	1813.3	1534.0	1278.9	1037.6	817.0	620.5
17.5°	4012.6	3464.5	2971.6	2544.1	2171.8	1854.6	1568.5	1303.1	1058.3	830.8	630.9
15°	4129.8	3564.5	3050.8	2606.1	2220.1	1889.1	1596.1	1327.2	1075.6	844.6	637.7
12.5°	4233.3	3650.7	3119.8	2657.9	2258.0	1920.1	1623.7	1347.9	1092.8	854.9	648.1
10°	4316.0	3719.6	3174.9	2702.7	2292.4	1944.3	1640.9	1365.1	1103.1	865.3	655.0
7.5°	4381.5	3774.8	3219.8	2733.7	2316.6	1965.0	1658.1	1375.5	1113.5	872.2	665.3
5°	4429.8	3816.1	3250.8	2757.8	2337.3	1989.1	1678.8	1392.7	1127.3	882.5	665.3
2.5°	4467.7	3847.2	3274.9	2778.5	2351.0	1989.1	1678.8	1392.7	1127.3	882.5	665.3
0°	4467.7	3847.2	3274.9	2778.5	2351.0	1989.1	1678.8	1392.7	1127.3	882.5	665.3



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	17.2	13.8	6.9	0.0
85°	37.9	24.1	13.8	0.0
82.5°	55.2	37.9	17.2	0.0
80°	72.4	48.3	24.1	0.0
77.5°	93.1	62.1	31.0	0.0
75°	110.3	72.4	37.9	0.0
72.5°	127.5	86.2	41.4	0.0
70°	144.8	96.5	48.3	0.0
67.5°	165.5	106.9	55.2	0.0
65°	182.7	120.7	58.6	0.0
62.5°	199.9	131.0	65.5	0.0
60°	217.2	141.3	68.9	0.0
57.5°	234.4	151.7	75.8	0.0
55°	251.7	165.5	82.7	0.0
52.5°	268.9	175.8	86.2	0.0
50°	286.1	186.2	89.6	0.0
47.5°	299.9	196.5	96.5	0.0
45°	317.2	206.8	100.0	0.0
42.5°	334.4	213.7	103.4	0.0
40°	348.2	224.1	106.9	0.0
37.5°	365.4	231.0	113.8	0.0
35°	379.2	241.3	117.2	0.0
32.5°	389.5	248.2	120.7	0.0
30°	403.3	255.1	124.1	0.0
27.5°	413.7	262.0	124.1	0.0
25°	424.0	268.9	127.5	0.0
22.5°	434.4	272.3	131.0	0.0
20°	444.7	279.2	134.4	0.0
17.5°	451.6	282.7	134.4	0.0
15°	458.5	286.1	141.3	0.0
12.5°	461.9	289.6	141.3	0.0
10°	468.8	296.5	141.3	0.0
7.5°	475.7	296.5	141.3	0.0
5°	475.7	296.5	141.3	0.0
2.5°	475.7	296.5	141.3	0.0
0°	475.7	296.5	141.3	0.0

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